

Course Name : MSCIT

Date : 17-02-2026

Subject Name : Mobile Application Development

Time : 03:00PM TO 05:15PM

Subject Code : MSCIT-302

Max Marks : 70

Section A

Q.-1. Respond to any three of the following questions in brief. (30)

- (1) Provide a comprehensive overview of the different versions of Android and their key features.
- (2) Explain the Activity Lifecycle in depth, including all major callback methods.
- (3) Discuss the primary and secondary attributes of an Android Intent.
- (4) Discuss the importance of the ART (Android Runtime) over the Dalvik virtual machine.
- (5) Detail the use of URI Permissions in Content Providers.

Section B

Q.-2. Write short notes on any four of the following topics. (20)

- (1) How do you set the JAVA_HOME environment variable on Windows?
- (2) Explain the "Project Tool Window" in the Android Studio IDE.
- (3) How do you declare permissions in the Android Manifest?
- (4) What is the purpose of "Marshalling" in RMI (contextualized for Android communication)?
- (5) Explain the onBind() method in a Service.
- (6) How do you reference system resources in XML?

Section C

Q.-3. Multiple Choice Questions. (10)

(1) Which Android version is named "Pie"?

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|------|-------|
| A) 7 | B) 8 |
| C) 9 | D) 10 |

(2) Which component serves as the foundation of the Android platform?

- | | |
|-----------------|--------------------|
| A) Java API | B) Android Runtime |
| C) Linux Kernel | D) System Apps |

(3) Which runtime environment was used in Android versions prior to 5.0?

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|--------|---------------|
| A) ART | B) Dalvik |
| C) JVM | D) Oracle JRE |

(4) Which environment variable must be set if the Android launcher cannot find Java?

- | | |
|--------------|--------------|
| A) JAVA_PATH | B) CLASSPATH |
| C) JAVA_HOME | D) SDK_HOME |

(5) In which development phase are Android Virtual Devices (AVDs) typically created?

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|----------------------|---------------|
| A) Project Setup | B) Building |
| C) Environment Setup | D) Publishing |

(6) Which panel in Android Studio shows the hierarchical list of all project components?

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|--------------------|------------------|
| A) Property Window | B) Palette |
| C) Component Tree | D) Preview Panel |

(7) What is the shortcut key for a "Project quick fix" in Android Studio?

- | | |
|----------------|-------------|
| A) ALT + ENTER | B) CTRL + D |
| C) SHIFT + F10 | D) CTRL + Y |

(8) Which directory is specifically used for app launcher icons?

- | | |
|-------------|-----------|
| A) drawable | B) values |
| C) mipmap | D) assets |

(9) Which activity state describes an activity that is completely hidden by another activity?

- A) Active
- B) Paused
- C) Stopped
- D) Destroyed

(10) Which activity lifecycle event is called when the activity starts interacting with the user?

- A) onCreate()
- B) onStart()
- C) onResume()
- D) onRestart()

Section D

Q.-4. Indicate whether the following statements are True or False.

(10)

- (1) Android Studio is the official Integrated Development Environment (IDE) for Android application development.
- (2) If the Android launcher cannot find Java, you should set the JAVA_HOME environment variable to point to the JDK folder.
- (3) Android Studio uses a build system based on Gradle to provide flexibility and customized build variants.
- (4) Activities in the Android operating system are managed using an activity stack.
- (5) The onCreate() event is called when the activity is first created.
- (6) Normal permissions require explicit agreement from the user at install time or runtime.
- (7) On devices running Android 6.0 or higher, apps must ask for dangerous permissions at runtime.
- (8) All resource subdirectories under the /res project directory must be named using lowercase letters.
- (9) The View class represents the basic building block for all user interface components.
- (10) TextView is the primary user interface element used for entering and modifying text.
